R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

Please cancel claims 7, 10 and 19 without prejudice. Please add new claims 26-28.

SUPPORT FOR THE CLAIM AMENDMENTS

Support for the claim amendments may be found in the specification, for example, on page 19 line 18 to page 10 line 13, page 11 lines 1-11, page 15 lines 7-21 and FIG. 3, as originally filed. Thus, no new matter has been added.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claims 1-25 under 35 U.S.C. §103(a) as being unpatentable over Jeon, US Pub. 2004/0066848, in view of Kato et al., '164 (hereafter Kato) and Prakasam et al., US Pub. No. 2004/0240559 (hereafter Prakasam), has been obviated in part by amendment, is respectfully traversed in part, and should be withdrawn.

Jeon concerns a direct mode motion vector calculation method for B picture (Title). Kato concerns macroblock coding including difference between motion vectors (Title). Prakasam concerns a context adaptive binary arithmetic code decoding engine (Title).

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Claims 1, 13, 20 and 21 are independently patentable over the cited references. Claim 1 provides (B) representing the motion for the two blocks with the group, the two blocks comprising two 4x4 blocks within a single 8x8 quadrant of a macroblock coded using a macroblock adaptive field/frame coding. In contrast, all of Jeon, Kato and Prakasam appear to be silent regarding a group having a parameter and up to two motion vectors. Furthermore, all of Jeon, Kato and Prakasam appear to be silent regarding a group that applies to two 4x4 blocks in a single 8x8 quadrant of a macroblock coded using a macroblock adaptive field/frame coding. Therefore, Jeon, Kato and Prakasam, alone or in combination, do not appear to render obvious that the two blocks comprise two 4x4 blocks within a single 8x8 quadrant of a macroblock coded using a macroblock adaptive field/frame coding, as presently claimed. As such, the claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

Claim 1 further provides that (A) the group comprises a parameter and up to two of a plurality of motion vectors and the parameter has (iv) a fourth value which indicates that both of the blocks use a bidirectional prediction in which a first of the blocks uses both of the two motion vectors and a second of the blocks uses both of the two motion vector. Claims 11 and 20 provide similar language. In contrast, all of Jeon, Kato and Prakasam appear to be silent regarding the motion of two blocks of

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any size being represented by up to two motion vectors in the bidirectional mode. Instead, each of Jeon, Kato and Prakasam appear to disclose that each block has two motion vectors in the bidirectional mode, thus the motion for two blocks is represented by four motion vectors. None of Jeon, Kato and/or Prakasam appear to explain how to represent the motion of the two blocks with a group having only half of the four motion vectors. Therefore, Jeon, Kato and Prakasam, alone or in combination, do not appear to render obvious that the group comprises a parameter and up to two of a plurality of motion vectors and the parameter has (iv) a fourth value which indicates that both of the blocks use a bidirectional prediction in which a first of the blocks uses both of the two motion vectors and a second of the blocks uses both of the two motion vector, as presently claimed. As such, claims 1, 13 and 20 are fully patentable over the cited references and the rejections should be withdrawn.

Claim 21 further provides that the representation has less than four motion vectors for the two blocks when in a bidirectional prediction mode, a first two of the four motion vectors referencing a first reference frame and a second two of the four motion vectors referencing a second reference frame. In contrast, none of Jeon, Kato or Prakasam appear to explain how to take the four motion vectors of the two bidirectional blocks and generate a representation with fewer than all four motion vectors.

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Therefore, Jeon, Kato and Prakasam, alone or in combination, do not appear to render obvious that the representation has less than four motion vectors for the two blocks when in a bidirectional prediction mode, a first two of the four motion vectors referencing a first reference frame and a second two of the four motion vectors referencing a second reference frame, as presently claimed. As such, claim 21 is fully patentable over the cited references and the rejection should be withdrawn.

Claim 4 is independently patentable over the cited references. Claim 4 further provides excluding the second plurality of the motion vectors from the group. In contrast, Prakasam does not appear to be valid art against the claim.

In particular, the rejection cites paragraph 0078 lines 1-19 of Prakasam. However, the cited text of Prakasam does not appear to exist in the provisional application of Prakasam. Therefore, paragraph 0078 of Prakasam has an effective date of May 26, 2004, which is after the present application was filed. As such, Prakasam is not valid art against claim 4 and the rejection should be withdrawn.

Claim 6 is independently patentable over the cited references. Claim 6 further provides that the parameter defines how many of the motion vectors are used by the first block. In contrast, no cites into any of Jeon, Kato and/or Prakasam are provided in the rejection of claim 6. Instead, all of the

arguments against claim 6 are directed to the language of claim 5. Therefore, *prima facie* obviousness has not been established and the rejection should be withdrawn.

Claim 12 is independently patentable over the cited references. Claim 12 further provides interpreting the motion vectors in the group based upon the parameter while above a predetermined H.264 standard level for a bitstream conveying the macroblock and using the motion vectors in the group independently of the parameter while below the predetermined H.264 standard level for the bitstream. In contrast, no cites into any of Jeon, Kato and/or Prakasam are provided in the rejection of claim 12. Instead, all of the arguments against claim 12 are directed to the language of claim 11. Therefore, *prima facie* obviousness has not been established and the rejection should be withdrawn.

Claim 16 is independently patentable over the cited references. Claim 16 further provides that the parameter defines how many of the motion vectors are used by the first block. In contrast, no cites into any of Jeon, Kato and/or Prakasam are provided in the rejection of claim 16. Instead, all of the arguments against claim 16 are directed to the language of claim 15. Therefore, *prima facie* obviousness has not been established and the rejection should be withdrawn.

Claim 24 is independently patentable over the cited references. Claim 24 further provides that the representation

utilizes less than a maximum number of bits, the maximum number of bits matching a base 2 logarithm of a product of the first number, the second number, the third number and the fourth number rounded up to a nearest integer. In contrast, no cites into any of Jeon, Kato and/or Prakasam are provided in the rejection of claim 24. Instead, all of the arguments against claim 24 are directed to the language of claim 23. Therefore, *prima facie* obviousness has not been established and the rejection should be withdrawn.

Claim 25 is independently patentable over the cited references. Claim 25 further provides that the representation comprises at most two of the four motion vectors, each of the two motion vectors can take on at least 67,108,864 unique values, and the representation uses fewer than 104 bits. In contrast, no cites into any of Jeon, Kato and/or Prakasam are provided in the rejection of claim 25. Instead, all of the arguments against claim 25 are directed to the language of claim 23. Therefore, *prima facie* obviousness has not been established and the rejection should be withdrawn.

Furthermore, Applicant's representative respectfully traverses the assertion on page 10 of the Office Action that the subject matter of claims 24 and 25 is not patentable. The Office Action does not include a 35 U.S.C. §101 rejection against either claim in support of the assertion. As such, the above assertion appears to be merely a conclusory statement. The Office Action is

also incorrect in asserting that the claims are "nothing more than the analogous translation of words from one language to another". The claims provide an upper limit on the size of the representation. Claim 24 expresses the upper limit as a function of the four values defined in claim 23. Claim 25 defines each of the four values as 67,108,864 and thus it follows that the upper limit is 104 bits. As such, the Office is respectfully requested to either withdraw the assertion that the claims contain non-patentable subject matter or provide an appropriate rejection with evidence in the record so that Applicant's representative can respond accordingly.

Claims 2-6, 8, 9, 11, 12, 14-18, and 22-25 depend, either directly or indirectly, from claims 1, 13 or 21, which are now believed to be allowable. As such, the above dependent claims are fully patentable over the cited references and the rejections should be withdrawn.

Claims 26-28 depend, either directly or indirectly, from claim 21, which is now believed to be allowable. As such, the new claims are fully patentable over the cited references and should be allowed.
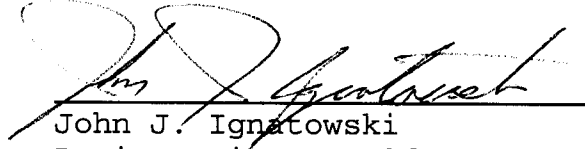
Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicant's representative between the hours of 9 a.m. and 5 p.m. ET at 586-498-0670 should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge Deposit Account No. 12-2252.

Respectfully submitted,

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Dated: <u>July 23, 2008</u>

c/o Lloyd Sadler
LSI Corporation

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